

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An energy meter device comprising:

[[ - ]] a first analog/digital transformer comprising an initial input (1) configured to feed receive a signal that is derived from a one voltage and to provide (V), which is connected to an initial analog/digital transformer (3), which comprises an output,

[[ - ]] a second analog/digital transformer comprising an a second input [(2)] configured to feed receive a signal that is derived from a one current and to provide (I), whereto a second analog/digital transformer (4) is attached, which comprises an output,

a multiplier (7), which links the outputs of both analog/digital transformers; (3,4) with one another,

[[ - ]] a phase evaluation block (9) with comprising first and second two inputs and an output, which are coupled to the outputs of both analog/digital transformers (3,4) wherein the first input of the phase evaluation block is electrically connected to the output of the first analog/digital transformer and the second input of the phase evaluation block is connected to the output of the second analog/digital transformer; and with one output that is linked with a control input of a phase correction block (6), and

[[ - ]] a the phase correction block (6), comprising a control input electrically

connected to the output of the phase evaluation block, wherein the phase correction block  
is ~~which is coupled~~ connected to an output of at least one of the first and second  
analog/digital ~~one of both analog/digital~~ transformers and the phase correction block is  
configured (4), ~~designed~~ to correct a phase deviation ( $\Delta\Phi$ ) of the a digitized signal that is  
derived from a ~~at least one of the~~ current (I) ~~or a~~ and the voltage. (V).

2. (Currently Amended) The energy meter of ~~device according to~~ claim 1,  
wherein ~~characterized by the fact that~~ the phase evaluation block (9) comprises a control  
block (12) ~~configured~~ to trigger the phase correction block (6) ~~depending based~~ on the  
phase deviation. ( $\Delta\Phi$ ).

3. (Currently Amended) The energy meter of ~~device according to~~ claim 2,  
wherein ~~the~~ ~~characterized by the fact that~~ control block (12) ~~contains~~ comprises a storage  
device configured to store ~~means for the permanent storage of~~ a phase correction value.  
(18).

4. (Currently Amended) The energy meter of ~~device according to~~ claim 2,  
wherein ~~the or 3, characterized by the fact that~~ phase evaluation block (9) comprises a  
phase difference detector, the phase difference detector comprising:  
a first input electrically connected to the output of the first analog/digital  
transformer;

a second input electrically connected to the output of the second analog/digital transformer; (11) with two inputs, which are coupled to the outputs of both analog/digital transformers (3,4); and

with an output that is electrically connected with to the control block. (12).

5. (Currently Amended) The energy meter of device according to claim 4,  
wherein the characterized by the fact that phase evaluation block further (9) comprises a  
phase layer detector (10), which is coupled between the outputs of both analog/digital the  
first and second analog/digital transformers (3,4) and the first and second inputs of the  
phase difference detector. (11).

6. (Currently Amended) The energy meter of device according to claim 5,  
wherein the characterized by the fact that phase layer detector is configured (10) is  
designed to establish determine signal peak values of the digitized signal.

7. (Currently Amended) The energy meter of device according to claim 5,  
wherein the characterized by the fact that phase layer detector is configured (10) is  
designed to establish determine signal zero points of the digitized signal.

8. (Currently Amended) The energy meter device of claim 1, wherein according  
to one of the claims 1 to 7, characterized by the fact that the first and second analog/digital

~~transformer (3,4)~~ analog/digital transformers comprise ~~are each constructed as~~ sigma-delta transformers.

9. (Currently Amended) The energy meter of device according to one of the  
~~claims 1 to 8~~ claim 22, ~~characterized by the fact that~~ further comprising an integrator (8) ~~is~~  
~~provided, which is operated subsequent~~ electrically connected to the multiplier (7).

10. (Currently Amended) The energy meter of device according to one of the  
~~claims 1 to 9~~ claim 1, ~~characterized by the fact that~~ wherein the first and second  
~~analog/digital transformer (3,4)~~ analog/digital transformers, the phase correction block,  
~~(6) and the phase evaluation block (9) are designed in~~ comprise integrated ~~circuitry~~  
circuits.

11. (Currently Amended) The energy meter of device according to one of the  
~~claims 1 to 10~~ claim 1, ~~characterized by the fact that~~ further comprising a non-galvanic  
coupling transmitter (16) ~~is~~ electrically connected to at least one of the first input (1)  
~~and/or of the first analog/digital transformer and the second input of the second~~  
analog/digital transformer, wherein the non-galvanic coupling transmitter is configured  
~~(2) to switch on the received signal, that is derived from a voltage (V) and/or from a~~  
current (I).

12. (Currently Amended) The energy meter of device according to claim 11,  
wherein characterized by the fact that the non-galvanic coupling transmitter (16) is  
designed as comprises a transformer.

13. (Currently Amended) The energy meter of device according to one of the  
claims 1 to 12 claim 1, characterized by the fact that a means is provided to generate  
further comprising a test signal generator (17), which is electrically connected to coupled  
with the inputs of the first and second analog/digital transformers, wherein input (1,2) of  
the energy meter device the test signal generator is configured to provide in order to feed  
in the a test signal in a calibration mode.

14. (Currently Amended) The energy meter of device according to one of the  
claims 1 to 12 claim 22, characterized by the fact that wherein the phase correction block  
(6) comprises an initial a first digital filter, and the energy meter device further comprises  
that a second digital filter (5) is applied between the output of the first analog/digital  
analog/digital transformer (3) and the multiplier (7).

15. (Currently Amended) The energy meter of device according to claim 14,  
further comprising a characterized by the fact that a means is provided for scanning  
sampling rate control device (19), which is coupled electrically connected to with each the  
control input of the phase correction block (6) and the input of the second digital filter.

(5).

16. (Currently Amended) A method for calibrating ~~the calibration of~~ an energy meter ~~device, comprising: with the following steps:~~

[[ - ]] coupling a test signal to ~~two~~ first and second inputs (1,2) of ~~an~~ the energy meter; ~~device,~~

[[ - ]] digitizing ~~of~~ the test signal coupled to the first input to generate a first digitized test signal;

digitizing the test signal coupled to the second input to generate a second digitized test signal; that is positioned at both inputs (1,2);

[[ - ]] ~~establishing~~ determining a phase deviation between ~~both~~ the first and second digitized test signals ( $\Delta\Phi$ ),

[[ - ]] generating a phase correction signal; and  
~~charging~~ applying the phase correction signal to one or more of the first and second of one of both digitized test signals, ~~with the phase correction signal.~~

17. (Currently Amended) The method of ~~according to~~ claim 16, wherein determining the phase deviation comprises measuring ~~characterized by the establishment of the phase layers of both digitized test signals through the measurement of the signal peak values of the~~ first and second digitized test signals ~~in order~~ to establish the phase deviation. ( $\Delta\Phi$ ).

18. (Currently Amended) The method of according to claim 16, wherein determining the phase deviation comprises measuring ~~characterized by the establishment of the phase layer of both digitized test signals through the measurement of the signal zero points of the first and second digitized test signals in order to establish the phase deviation.~~ ( $\Delta\Phi$ ).

19. (Currently Amended) The method of according to one of the claims 16 to 18 claim 16, characterized by each further comprising digitally digital filtering of both the first and second digitized test signals prior to determining ~~the establishment of the phase deviation.~~ ( $\Delta\Phi$ ).

20. (Currently Amended) The method of according to claim 19, characterized by the further comprising setting of the scanning a sampling rate of the digital filtering of the first and second both digitized test signals, prior to the establishment of the phase deviation ( $\Delta\Phi$ ).

21. (Currently Amended) The method of according to one of the claims 16 to 20 claim 16, characterized by the inductive wherein coupling the test signal to the first and second inputs comprises inductively coupling of the test signal to at least at one of the first and second inputs ~~input (2)~~ of the energy meter device.

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Page : 12 of 13

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22. (New) The energy meter of claim 1, further comprising a multiplier electrically connected to the outputs of the first and second analog/digital transformers.